STATUS OF THE DOUGLAS-FIR TUSSOCK MOTH IN THE SOUTHWEST - 1977

By David G. Holland

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The Douglas-fir tussock moth, Orgyia pseudotsugata McD., occurs at endemic levels wherever host-type exists throughout the Southwestern Region. Localized infestations have periodically damaged natural stands of Douglas-fir and white fir, and ornamental Douglas-fir, white fir, and blue spruce (Lessard 1975). Since 1975, six geographically distinct infestations have been detected and are causing noticeable defoliation with some scattered tree mortality.

CIBOLA NATIONAL FOREST

Canyon del Agua is located 20 miles northeast of Albuquerque on the west side of the Sandia Mountains. The canyon is situated west to east, terminating at the base of the mountain crest, with elevation ranging from 7,000 to 8,500 feet. Access to the canyon is by footpath only. The tussock moth has been defoliating host-type in the canyon for 3 years. In 1977, the population began to decline from natural causes.

Domingo Baca Canyon is located 15 miles northeast of Albuquerque on the west side of the Sandia Mountains, directly below the aerial tramway. The canyon is situated west to east, terminating at the base of the mountain crest, with elevation ranging from 7,000 to 8,500 feet. There are no trails in this canyon; access is by following the main canyon arroyo. The infestation is causing defoliation of host-type, which occurs in the eastern portion of the canyon, and has been there for 2 years.

Trigo Canyon is located 45 miles southeast of Albuquerque on the west side of the Manzano Mountains. The canyon is situated west to east, terminating at the mountain crest, with elevation ranging from 7,000 to 9,500 feet. Access to the canyon is by footpath. The tussock moth has been present for 3 to 4 years, causing severe defoliation and tree mortality. In 1977, the population is declining due to lack of host-type and a natural virus.

Although tussock moth larvae can be found at endemic levels wherever host-type occurs, the potential for spread of the insect from the canyons mentioned is minimal. The canyons are typically in a a pinyon-juniper type, with Douglas-fir and white fir occurring in the canyon bottoms and at the higher canyon elevations. Host-type for the tussock moth occurs on the east side of the Sandia and Manzano Mountains and prevailing wind currents should prevent the spread over the mountains.

SANTA FE NATIONAL FOREST

Medio Dia Canyon is located 70 miles northwest of Albuquerque and 15 miles north of Cochiti Lake. The canyon is situated southeast to northwest, with elevation ranging from 6,500 to 7,000 feet. The canyon is accessible for 2 miles by a logging road and from the road termination by footpath. The infestation begins .5 miles up from the junction of Medio Dia and Cochiti Canyons and continues northwest for 2.5 miles. Defoliation has been evident for 3 years, with some tree mortality occurring in 1976 and 1977. The population appears to be spreading up the canyon in a northwest direction and can continue this direction for several miles due to the abundance of host-type.

Cochiti Canyon is the next canyon east of Medio Dia Canyon. The canyon is situated south to north, with elevation ranging from 6,500 to 7,200 feet. The canyon is accessible for its entire length by a dirt road. The infestation occurs along the road 1.9 miles from the junction of Cochiti and Medio Dia Canyons and continues north for .5 miles. Defoliation was negligible to light in 1976, increasing to light to moderate in 1977. High egg mass densities suggest defoliation will be heavy to complete in 1978. Host-type extends for several miles to the north, and spread up the canyon can be anticipated.

LOS ALAMOS COUNTY, NEW MEXICO

Los Alamos and Pueblo Canyons are located within the town of Los Alamos. These canyons are situated east to west, with elevation ranging from 7,400 to 8,000 feet. Los Alamos Canyon is accessible by improved road and Pueblo Canyon is accessible by footpath. The infestations in these canyons have been causing defoliation for 3 years. Although host-type is present on surrounding mountains, spread is not anticipated due to a pesticide control project planned for spring 1978.

LITERATURE CITED

Lessard, E. D. 1975. The occurrence and control of the Douglas-fir tussock moth in the Southwestern Region. USDA Forest Serv. R-3 76-14. 5 pp.